

Message

From: Whittier, Robert [Robert.Whittier@doh.hawaii.gov]
Sent: 2/28/2017 11:45:01 PM
To: Donald Thomas [dthomas@soest.hawaii.edu]; Ronald Chinn [ron.chinn@innovex.net]; Pallarino, Bob [Pallarino.Bob@epa.gov]
Subject: Re: Proposed Well Locations - Red Hill
Attachments: Red Hill Drilling.pptx

Hi All,

8:00a works for me also. I think all will find the attached interesting. These pictures from the 2007 investigation. We have talked a lot about drilling holes, particularly in the tunnel. this shows how it was done.

From: Donald Thomas <dthomas@soest.hawaii.edu>
Sent: Tuesday, February 28, 2017 1:27:23 PM
To: Ron Chinn; Pallarino, Bob
Cc: Whittier, Robert
Subject: Re: Proposed Well Locations - Red Hill

Aloha All,

Sorry to be slow to engage in this discussion - had a commitment this morning that had me pretty well tied down. Thursday morning at 08:00 Hawaii Time would be fine for me - will look forward to participating in the discussion.

Don

On 2/28/2017 11:54 AM, Ron Chinn wrote:

Thanks for your note Bob. Bear in mind that my recommendations are far from final – while it's my best guess at the moment, it's nothing but a straw man for Bob and Don to tear apart.

Regarding RHMW11, I understand the consternation about suggesting that it's not particularly useful. Unfortunately, we're going to have some of that. EPA and DOH is currently taking a much more active role in helping the Navy figure out a Conceptual Site Model, but in times past, it seems like the Navy would propose something slightly goofy, and the agencies would more or less say "well, it's better than nothing". A perfectly good example of that was the proposed replacement well at the Oily Waste Disposal Facility. While the junior staff may be frustrated, the bigger picture is that instead of installing "three more wells", they only have to install two...and by the way, move RHMW11.

The problem is that RHMW11 just isn't that useful. RHMW12 could be of more value, but it's still pretty limited in comparison to the other wells I'm suggesting. I'm not sure how to best approach this – at the end of the day, we're chess players taking over a game from a novice player. It's pretty hard for us to justify their past moves.

Oh, and 10:00 PST works fine for me on Thursday. Bob & Don?

Thanks,
—Ron

Ron Chinn, PE, PMP, CHMM

President & CEO

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From: "Pallarino, Bob" <Pallarino.Bob@epa.gov>

Date: Tuesday, February 28, 2017 at 11:33 AM

To: Ron Chinn <ron.chinn@innovex.net>

Cc: "Whittier, Robert" <Robert.Whittier@doh.hawaii.gov>, Donald Thomas
<dthomas@soest.hawaii.edu>

Subject: RE: Proposed Well Locations - Red Hill

Ron,

Sorry I missed your call, today is filled with meetings not related to Red Hill. I wanted to drop you a quick note to let you know I got your call and reviewed your attachment. I can set up a call on Thursday, would 10:00 am PST (8:00 am HST) work? I know Bob W starts early but I am not sure of Don's schedule.

I have to run to another meeting now and then I have another after that that will finish my day but I can give you a call tomorrow morning to get up to speed. On our regular Monday call the Navy seems resigned to the fact that they will need to do some more drilling work, they are also consulting with Delwyn at USGS. We tentatively planned on a call to discuss the issue next Friday March 10. We should come to agreement among ourselves on our recommended locations before that call, if possible.

The only thing that concerns me is your proposal to tell the Navy to abandon RHMW11. They have spent a lot of effort getting access (though they are not quite there yet, at least as of Monday), and I think they will react poorly and think it a late hit if we tell them we think the location is no good. But we can talk some more tomorrow.

I get in the office at 6:30 am tomorrow. Let me know a good time to call you.

Bob

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From: Ron Chinn [<mailto:ron.chinn@innovex.net>]
Sent: Tuesday, February 28, 2017 12:24 PM
To: Whittier, Robert <Robert.Whittier@doh.hawaii.gov>; Donald Thomas <dthomas@soest.hawaii.edu>
Cc: Pallarino, Bob <Pallarino.Bob@epa.gov>; Linder, Steven <Linder.Steven@epa.gov>; steven.chang@doh.hawaii.gov
Subject: Proposed Well Locations - Red Hill

Hi Bob & Don -

Don...just to bring you up to speed with my conversation with Bob Whittier this morning, we're interested in providing the Navy with some suggested locations for monitoring wells in order to help them develop their conceptual site model of what's going on out there. I believe that the North and South Halawa valleys represent a pretty substantial data gap – the Navy just has no information here. We're brainstorming, and I'd like to get your input.

As requested by Bob Whittier, I've created a powerpoint file showing my current thoughts with respect to well locations, as well as my justification and how the data collected from these wells would be used. The actual well construction can be debated at a later date, but for now, I'm primarily focused on well siting. As you can probably tell from my well locations, I tend to think that Stearn's view of the world is correct – that the saprolite tends to guide at least SHALLOW groundwater toward Pearl Harbor. What happens a few hundred feet below the groundwater table is well beyond my pay grade, but since LNAPL is found at the groundwater surface and any dissolved contaminants (which I assume to be neutrally buoyant) would at least start near the top of the groundwater table, my primary interest is in the shallow zone and those features that might influence shallow groundwater flow.

I would really appreciate it if you would both take a moment to review my powerpoint file and give me your thoughts. Please feel free to move the dots around – or even add points if you feel that additional wells are required to come up with a defensible conceptual site model. Bear in mind that we want to provide the Navy with the “best bang for their buck” so I'm reluctant to ask for more investigation than we need, but it still needs to be defensible. Also, since exploratory borings without setting a well may be substantially cheaper, I think the Navy might be amenable to doing a few additional borings if we feel they're necessary.

Thank you for your help!
—Ron

Ron Chinn, PE, PMP, CHMM
President & CEO

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